USU - AV 3010 LECTURE

Kirk Nielsen, P.E.
Aeronautical Planner
Utah Division of Aeronautics

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Lecture Topics

1. **Utah's Division of Aeronautics**
2. **Airports**
   a) **Types of Airports**
3. **Utah's System of Airports**
   a) **Utah's Air Transportation System**
   b) **"I pay taxes, where does my money go?" – Airport Funding**
   c) **Airport Progress updates**

Utah's Division of Aeronautics

Part of the Utah Department of Transportation

Mission Statement:

Promote and foster aviation in Utah by providing safe and functional airport systems as an integral part of the statewide transportation program. Supply safe and efficient air transportation to state agencies and those conducting state business. Provide quality maintenance for state-owned aircraft. Be team oriented and sensitive to the needs of each individual in the organization and customers.

Division of Aeronautics

Regulatory Responsibilities

License, inspect and operate airports within the state

Aeronautics provides oversight and technical advice on all airport projects. **(excludes SLCIA, SLC#2, TVY & SGU)**

- **Roughly 40 projects per year.**

All Planning Documents, Construction Plans, Specification and Estimates have to be approved by UDOT's Division of Aeronautics.

Regulatory Responsibilities

Division of Aeronautics

Employees: 1 Director (pilot)
2 Civil Engineers (both pilots)
1 Office Manager / Accountant

Project Manager/Aeronautical Planner

Project funding and allocation of state and federal funds
Airport Inspection/Compliance – AF/D
Liaison between airport sponsors & FAA
Project Oversight
State System Plan
Planning Studies (Operation Counts/Wind Studies)

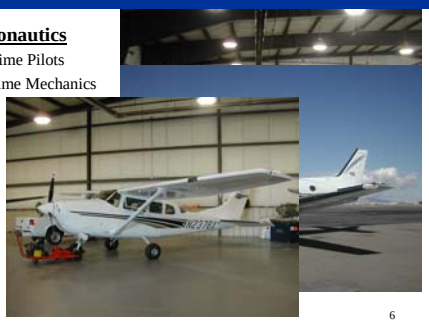
Operations and Maintenance

Division of Aeronautics

Employees: 4 Full time Pilots
3 Full time Mechanics

Aircrafts

King Air B200
King Air C90
C-206



Operations and Maintenance

Aircraft Maintenance on:
Three C-185 (Natural Resources)
Barron (Highway Patrol)

Additional State Owned Aircraft
Two Astar Helicopters (Highway Patrol)

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Real Flight Announcements

Occasionally, airline attendants make an effort to make the "in-flight safety lecture" and their other announcements a bit more entertaining. Here are some real examples that have been heard or reported:

Heard on Southwest Airlines just after a very hard landing in Salt Lake City: The flight attendant came on the intercom and said, "That was quite a bump and I know what ya'll are thinking. I'm here to tell you it wasn't the airline's fault, it wasn't the pilot's fault, it wasn't the flight attendants' fault... it was the asphalt!"

After a real crusher of a landing in Phoenix, the Flight Attendant came on with, "Ladies and Gentlemen, please remain in your seats until Captain Crash and the Crew have brought the aircraft to a screeching halt up against the gate. And, once the tire smoke has cleared and the warning bells are silenced, we'll open the door and you can pick your way through the wreckage to the terminal.

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Utah Airports

- 145 Airports in the State of Utah
- 47 are Public-use airports
- 34 are in the National Plan of Integrated Airport Systems (NPIAS)
- 2122 Based Aircraft at Utah Airports

Airport Funding

- Only public-use airports are eligible for Federal and State funding.
- Only public-use airports in the NPIAS are eligible for Federal funds.

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FAA Airport Classifications

Types of Airports

I. Primary Commercial Service
II. Commercial Service
III. Reliever Airports
IV. General Aviation - **Logan**

Types of Aircraft supported at the Airports

- Airport Reference Code (ARC)
  - Aircraft Approach Category
  - Airplane Design Group

Airport Reference Code

The **Airport Reference Code** is a coding system use to relate the airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport.

Table 4.1 FAA Airport Reference Code Categories

Approach Speeds Knots	Wing Span
A -- less 91 knots	I – up to but not including 49 feet
B -- 91 knots or more but less than 121 Knots	II -- 49 feet up to but not including 79 feet
C -- 121 knots or more but less than 141 Knots	III -- 79 feet up to but not including 118 feet
D -- 141 knots or more but less than 166 Knots	IV -- 118 feet up to but not including 171 feet
E -- 166 knots or more	V – 171 feet up to but not including 214 feet
--	VI -- 214 feet up to but not including 262 feet

Source: FAA Advisory Circular 150/5300-13

I. Aircraft Approach Category is a grouping of aircraft based on 1.3 times their stall speed in landing configuration at the certified maximum flap setting & max landing weight

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Airport Reference Code

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Primary Commercial Service Airports

Primary Commercial Airports Requirements

I. Scheduled Service
II. Enplane over 10,000

Examples:
Salt Lake International, St. George, & Wendover

Characteristics

- Tower
- Precision Instrument Approaches (i.e. ILS)
- Long & wide runways with full lighting systems to support heavy aircraft (i.e. Boeing 777 - ARC: D-IV)

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Small Commercial Service Airports

Small Commercial Airports Requirements

I. Scheduled Service or Frequent Charter Service
II. Enplanes under 10,000 per year

Examples:
Cedar City, Vernal, Moab & Bryce Canyon

Characteristics

- Scheduled commercial service provided through Essential Air Service
- Non-Precision Instrument Approaches (i.e. GPS, VOR or DME)
- Long & wide runways with full lighting systems to support regional jets (RJs - ARC: C-II)

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Reliever Airports

Reliever Airports

I. Relieve congestion at commercial service airports.
II. Usually general aviation congestion.

Examples:
Ogden, Tooele, & SLC #2

Characteristics

- Mixture of facilities found at Commercial Service Airports
- Precision or Non-precision Instrument Approaches (ILS, WASS, GPS, DME, VOR)
- Long & wide runways with full lighting systems to support **GA** aircraft that cannot make their primary destination. (ARC: C-II)

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General Aviation Airports (GA)

GA Airports

I. All other airports

Examples:
Logan, Brigham, & Morgan

Characteristics

- May support an Instrument Approach
- May not have lighting
- May not have any type of service
- RWY lengths, widths and strengths vary
- Might be missing critical safety features
- ARC: A-I to C-II

Utah's System of Airports

A Segment of the Nation's and Utah's Transportation System

1. Daily International Flights
2. Numerous Regional Flights

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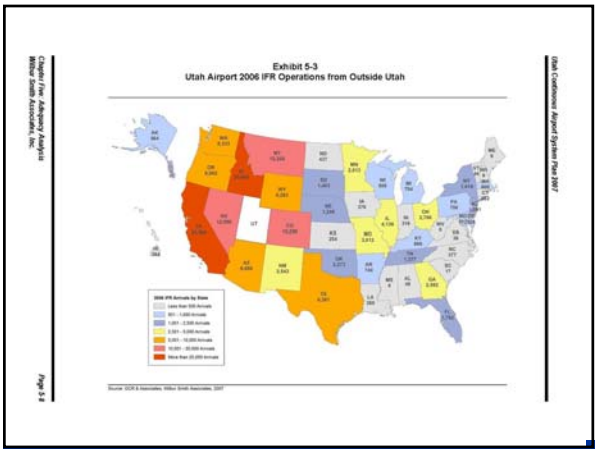

Air Traffic Studies

We study:

1. The number of operations & aircraft at each airport.
2. The number of people flying and where they go.
3. How much of the Utah's population that have reasonable access to an airport/airport services
4. Geographic coverage & population growth of the state.
5. Life Flight & Air Med services to rural regions of the state.

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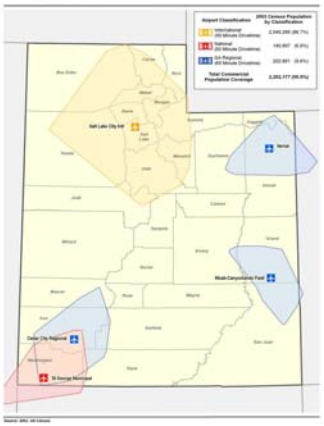

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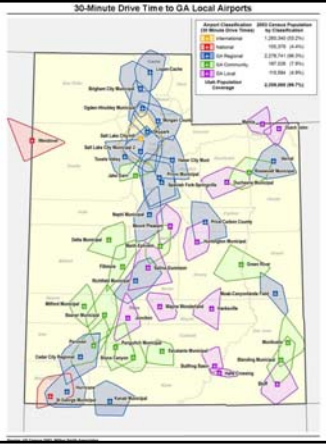

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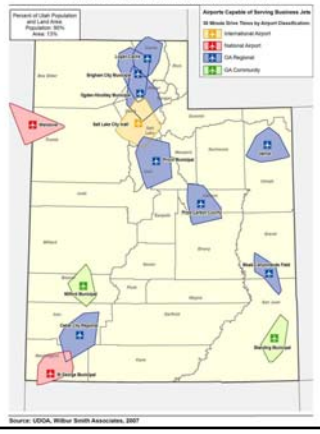

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Future Demands on Airports

Changes in Industry Dynamics

Increase in Traffic

I. Growing population = Growth in demand
II. Larger aircraft being replaced by RJ service
III. Increase in part ownership of private jets
IV. VLJs

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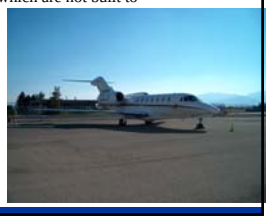
Changes in Industry Dynamics

Net jets

- 4th largest carrier in the US
- Not restricted to Commercial Service airports
- Provides service to almost all airports
- Cause big dilemmas at GA airports which are not built to accommodate their aircraft's



Airport Funding

All airports are in need of continued repair and improvement.

Airport Funding types

1. FAA Airport Improvement Program (AIP)
2. State Funding
3. Other
   a) Sponsor
   b) Natural Resources ect.
   c) Private (Redbull)

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Federal Funding

Airport Improvement Program (AIP)

1. In 2004 Congress passed "Vision 100 – Century of Flight Authorization Act of 2003"
2. Authorized $3.4 Billion for FY04
   - $3.5 Billion for FY05
   - $3.6 Billion for FY06
   - $3.7 Billion for FY07
3. 95% funding at GA Airports, and 90%+ for Commercial Service Airports

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Federal AIP funds

Funds

1. Every year Utah is given $30-$45 million in Federal Funds. The majority of these funds goes to SLC International and St. George Airports.
2. Funds come from the "Airways Trust Fund". Money in the "Airways Trust Fund" are derived from fuel and ticket taxes.
3. Three FAA funding bills have been formulated (FAA, Senate, House)
   A. FAA – Users fees and a large tax increase on GA - a 20% decrease in spending on airports
   B. Senate – User fees and a increased tax on jet fuel – increase in airport spending
   C. House - Increases on Avgas and Jet fuel - increase in airport spending

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Federal AIP funds

NPIAS Entitlements

1. Every year Utah is given $8 millions in state apportionment. GA Airport Entitlements are taken from the apportionment.
2. "Vision 100" Entitles all NPIAS airports funds
   - General Aviation airports receive a $150,000 per year
3. Besides Entitlements and State apportionments GA airports can receive discretionary funds.
   - Discretionary funds are allocated on a competitive basis.
   - Airports compete with other airports nationwide that are the same size.

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State Funding

Airport Funding types

1. State Funding – Utah Division of Aeronautics – 90% funding
   - General Aviation Fuel tax $0.09 / gallon
     - $0.03/ gal to point of origin
     - $0.06/gal to the Aeronautics Restricted Account
   - Commercial Aviation Fuel tax $0.04 / gallon
     - $0.03/ gal to point of origin
     - $0.01/gal to the Aeronautics Restricted Account
   - Aircraft Registration
2. Airport Sponsor responsible for 10% of State Grant
3. The state "Aeronautics Restricted" funds between $2.0 - $3.4 million in projects per year.

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SGU

Supplemental EIS was signed by the FAA last year. Noise modeling in Zion National Park was very controversial.

Property acquisition and construction of the new airport can proceed.

On Sept. 25 2006, the FAA administrator gave SGU a $17.2M of the $180M needed to construct the new airport.

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Utah Updates

WASS approaches

Utah has 4 published WASS approaches (Ogden, Logan, Provo & SGU)

ILS

Logan – Oct. 07

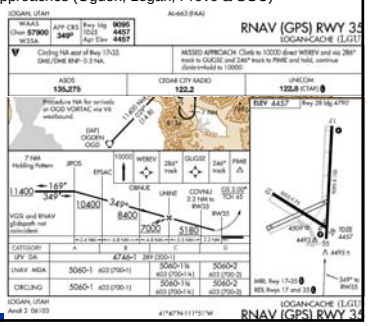
Tooele – Spring 08

Price/Carbon – 2009-10

Wendover – 2010-2011

Radar

US Senate appropriated $1.0M for a Multilateration system



Utah Updates

Airport Improvements

Airport/runway reconstructions

Nephi Airport – finished in late last year

Brigham City – Runway and parallel taxiway will be complete this year

Logan Airport – Full Parallel taxiway for ILS minimums (2008)

Fillmore Airport – Airport reconstruction will finish this fall (2007)

Richfield – Airfield reconstruction to start next year (2008)

Ogden – Taxiway "K" Full parallel (2009 completion)

Wendover – New terminal and parallel taxiway (2011 completion)

St. George – New Airport (2013 completion)

Monticello – New Airport (2015 completion)

Vernal – New runway and taxiways (2016 completion)

Salt lake City International – New terminal buildings (Concourses)

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Conclusion

Airport

- In the state and throughout the nation we are served by a variety of airports.
- Airports are essential for transportation and access for urban and rural areas.

Air Travel

- Air travel is essential to Utah's economy.
- Major changes are taking place in the airline aircraft industry.

Airports are maintained by your tax dollars

- Taxes are paid whenever you fly (taxes on fuel & PFCs)
- Airports are in constant need of maintenance and upgrade to meet the demands of aviation.
- Taxes are needed to maintain the air transportation system.
- The total economic impact of Aviation to Utah adds $5.86 billion to the economy annually.

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